

# Improving Communication and Critical Thinking Skills among Accounting Students Through The Use Of Flipped Learning

Norhaiza Khairudin, Danilah Salleh and Marhaiza Ibrahim

Tunku Puteri Intan Syafinaz School of Accountancy,  
Universiti Utara Malaysia

**Abstract:** *Many researchers have attempted to study the efficiency of e-learning and blended learning concepts on teaching and learning processes. One of the most recent developments in technology enhanced method in teaching and learning is a method called flipped learning. It is an approach where the traditional one-way lecture is flipped to make room for active learning opportunities where educators shift learning into the individual learning space facilitated by technology. This study attempts to implement flipped learning approach in the effort to enhance communication and critical thinking skills among accounting students in Tunku Puteri Intan Syafinaz School of Accounting (TISSA) in Universiti Utara Malaysia. The study involved 49 students from BKAL1013 Business Accounting Group O class from the first semester of 2016/2017. The objective of this study is to examine how the use of flipped learning can help to improve communication and critical thinking skills in problem solving among students taking the accounting subject.*

*From this study, the results showed that students' communication and critical thinking skill has developed with the use of flipped learning. Sufficient time however, is needed for students to understand the content from the lectures given in the form of a video used as the media in this project used as an e-learning platform in this project, as well as the 'catchy' contents should be created to enhance interest from the students to watch the video.*

**Keywords:** *Flipped learning, technology in education, action research*

## 1. Introduction

The use of technology in delivering university's courses has become ubiquitous in this era of knowledge enhancement. Since the 1980's the use of technology to deliver accounting courses were strongly recommended (Friedman, 1981). Nevertheless, the use of technology in university courses has been reportedly to be largely focused in delivering contents rather than as a medium to interact among students. This style of teaching and learning is still considered as traditional with technology used only as a means of delivering information and course contents.

In the traditional teaching method which is also known as the teacher-centred learning approach, the teacher or instructor delivers knowledge in a classroom in a one-way direction. This method urges students to be passive learners where they solely rely on learning by listening, memorising and knowledge repetition.

Particularly, in the accounting education sector, the traditional mode of teaching relates to the method of teaching where the accounting courses are taught in the classroom lecture mode, where the students complete their assignments without the aid of technology or other tutorial devices (Friedman, 1981). A number of studies have been done to investigate the students' achievements differences when using technology to aid the teaching and learning processes in accounting courses (Dowling, Godfrey, & Gyles, 2003; Du, 2011; Jones & Chen, 2008; Freeman & Hancock, 2013; Musallam, 2010; Warter-Perez &

Dong, 2012). Friedman (1981), did a study to determine whether there is a significant difference in the achievement between two groups of students, the groups which uses computers as a tool as problem-solving tool for their assignments and the control group which used the traditional method of teaching accounting courses. Their results show that the group that used the computer as problem-solving tool achieved significantly higher scores compared to the control group.

## **2. Communication and Critical Thinking Skills among Students**

There are several issues and problems related to the traditional learning and teaching method and one of them being students not able to fluently address their problems in class. In the traditional settings of lecturer centred learning, students tend to remain inactive and the communication flow tends to be a one way communication. The students would therefore tend to wait for the solution to any assignment and exercises answer from the lecturer, while some students are actually not doing their homework/tasks at all. Some students are merely shy in explaining their answers in class and have difficulty in answering the "how" and "why" questions.

Through the flipped learning approach, the lectures on the topics are given in the form of video, audio or other multimedia, for the students to listen and understand the topics while the 'homework' or questions are discussed in class. It is hoped that by incorporating flipped learning in teaching and learning, the method could be an effective strategy to assist students to reflect about what they have learned in class during discussions, thus the critical thinking and communication skills of the students would developed. This is important in order for the students to be successful by improving their communication and critical thinking skills and becoming life-long learners.

Therefore, this study attempts to implement flipped learning approach in the effort to enhance communication and critical thinking skills among accounting students in Tunku Puteri Intan Safinaz School of Accounting (TISSA) in Universiti Utara Malaysia.

## **3. Flipped Learning Approach**

More recently, the enhancement in technology used in teaching and learning has rapidly evolved. Many researchers have attempted to study the efficiency of e-learning and blended learning concepts on teaching and learning processes. Particularly in accounting courses taught in higher learning institutions, researchers have attempted to investigate the effect of the use of blended learning in delivering accounting courses and mixed results have been found (Dowling, Godfrey, & Gyles, 2003; Du, 2011; Jones & Chen, 2008; Keller, Hassell, Webber, & Johnson, 2009). Du (2011) who examined the comparison between the traditional and blended learning in an introductory principals of accounting course, found that the course that blended learning approach improves the students' final exam performance.

One of the most recent developments in technology enhanced method in teaching and learning is a method called flipped learning. It is an approach where the traditional one-way lecture is flipped to make room for active learning opportunities (Freeman & Hancock, 2013). Several researchers have provided definitions of flipped learning (Freeman & Hancock, 2013; Musallam, 2010; Warter-Perez & Dong, 2012). For example, Musallam (2010) described that in the flipped learning approach, the educators shift learning into the individual learning space facilitated by technology. This includes the process of recording and narrating class lecture videos and audios or curate video lessons from the internet thus, subsequently the videos are accessed by students in their own convenience. Using this approach, students' study time which traditionally used to complete their homework given by teachers or lecturers, are used to engage with the class lecture using videos or other media prepared by the lecturers. Conversely, the

activities such problem solving, knowledge application and collaborative exercise, traditionally done as homework after class sessions, are now conducted in class with the presence of the lecturer to guide them.

### **3.1. Previous studies on flipped learning approach**

Researchers have demonstrated positive impacts resulted from their studies done to examine the effect of flipped learning approach on students' learning processes (Ferreira-Meyers, 2015; Musallam, 2010; Warter-Perez & Dong, 2012). From the results of their survey, Warter-Perez and Dong (2012) demonstrated that students felt that the flipped class learning environment was more interactive and that the new learning environment allowed them to gain better hands-on skills and they also agreed that the flipped class helped them to learn the content better. In addition, Ferreira-Meyers (2015) contended that the flipped learning model can enable educators to make the shift from teacher-driven instruction to student-centred learning where the excellence in students' communication and critical thinking skills are the centre of concern.

In line with this, the area of focus for this study is therefore to improve students' communication and critical thinking skills through the use of flipped learning. It is strongly believed that without solid foundation of communication and critical thinking skills, students will likely be faced with a huge struggle throughout their studies and working life. As the traditional method of teaching and learning does not promote communication and critical thinking skills, it is felt that enhancement on this approach should be implemented. In the traditional method, the class meeting time is occupied with lecturer delivering lessons through class activities using PowerPoints. From the researchers' experience and observation, students usually pay less attention on the presentation or explaining method used by the lecturer. This is because the students are not participating in the process of learning. To the lecturers, most of the time in class has been utilized for lecturing and catering on any questions arises by the students. In reality, the students rarely ask the lecturer. Using flipped learning, the lecturer will upload the lecture in e-learning portal and the students then will do the 'homework' in the class. Therefore, it is deemed that by using the flipped learning approach, more time can be allocated to develop students' skill in communicating the subject or problem.

## **4. Methodology**

This study employed action research. According to Mc Niff (2010), "Action research is a term which refers to a practical way of looking at your own work to check that it is as you would like it to be". Action research is done by the practitioner. It involves oneself thinking about and reflecting on his/her work. Action research is an enquiry conducted by oneself where the practitioner think about his/her own life and work. In action research report, it shows how practitioner has carried out a systematic investigation into his/her own behaviour, and the reasons for that behaviour.

Action research is open ended. It does not begin with a fixed hypothesis. It begins with an idea that the practitioner develop. The research process is the developmental process of following through the idea, seeing how it goes, and continually checking whether it is in line with what the practitioner wish to happen. Seen in this way, action research is a form of self-evaluation. It is used widely in professional contexts such as appraisal, mentoring and self-assessment.

The study involved 49 students from BKAL1013 Business Accounting Group O class from the first semester of 2016/2017. This class is chosen because Business Accounting subject is the most fundamental accounting subject and the subject requires students to have hands on technical understanding on accounting knowledge therefore suits the objective of this study. The objective of this study is to examine how the use of flipped learning can help to improve communication and critical thinking skills in problem solving among students taking the accounting subject. The evaluation for the result of this study will be based on the communication and critical thinking rubric assessment currently used in accounting subjects in TISSA. An evaluation of the suitability of the current rubric to evaluate the

aspect of communication and critical thinking skills in the implementation of flipped learning is also examined. In this study, the lecturer observation, checklist and interviews were used by the lecturer/researcher to gather data throughout the intervention. There are three phases of data collection, *Pre-Implementation*, *During Implementation* and *Post Implementation*. In each phases, reflections were taking placed. Qualitative data analyses which include thematic analysis and content analysis are used to analyse the qualitative data.

## 5. Findings and Discussion

From the results, it has been found that most of the students' communication and critical thinking skill enhance with the use of flipped learning. They react positively toward the video uploaded. They said:

"I like it because the video discuss the topic and make me understand about the questions and answers."

"I feel more alive in my classroom."

"It gives me a good experience in understanding the question provided."

The result on exercise assessment showed that students able to demonstrate passion for the topic presented. The classroom became lively where the students can actively communicate with each other on the exercise given. This is consistent with previous studies which shows that through flipped learning, the students actually are able to identify issue/ problem in a complex situation and able to assess and justify the situation (Kashefi, Ismail and Mohammad Yusof, 2012).

"I discuss with my friend and frequently ask the lecturer on solutions"

"It assists me in answering the exercise because I can repeatedly watch the example question"

During the class session, it is found that not all students are able to watch the video. This is due to limited time given for the students to watch the video. They also stressed that they need more time to watch the video repeatedly in order to understand. Reflectively, not all students can understand the content of the video since their level of understanding are at different level.

## 6. Conclusion

As a conclusion, through flipped learning approach, students can prepare earlier by watching the lecture video and if they cannot understand, they can watch the video again to understand the specific section that they need more understanding.

Based on the findings, it is also concluded that through flipped learning, the lecturer can have more time to focus on each student as the class session in conducted by having the students to solve the exercises questions. The videos are given earlier therefore the students can understand the topic before they enter the class session. They can also have more time to think critically in solving the problems in class.

In the first session, the students did not know what to expect because they do not the awareness of how flipped learning session is done. After the first session, students have more understanding on how the flipped learning is conducted therefore they are more prepared before they enter the class in the second session.

After the reflections, it is concluded that the videos that is going to be developed in flipped learning sessions should be created in a more simple, easy to understand and more interesting with enhanced technology such as Biteable.com, Powtoon.com and others.

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